

**Possible Four-Year Plan****(Total Hours: 128)****Freshman – FALL (17 hrs)**

BIO-1110 Introduction to Biology (w/Lab)	4
CHEM-1110 General Chemistry I (w/Lab)	4
BEGE-1710 Christian Life and Thought	3
COM-1100 Fundamentals of Speech	3
ENG-1400 Composition	3

**Freshman – SPRING (17 hrs)**

GMTH-1030 Precalculus*	4
CHEM-1120 General Chemistry II (w/Lab)	4
BIO-2250 Cell Biology (w/Lab)	4
BEGE-1720 Spiritual Formation	3
PEF-1990 Physical Activity & Christian Living	2

Option: Reduce load to 14 hrs, and take the EMT course

**Sophomore – FALL (16 hrs)**

CHEM-3510 Organic Chemistry I (w/Lab)	4
MATH-1710 Calculus I*	5
BIO-4210 Advanced Cell Biology (w/Lab)	4
BEGE-2730 Old Testament Literature	3

Option: Add the EMT course

**Sophomore – SPRING (14 hrs)**

CHEM-3520 Organic Chemistry II (w/Lab)	4
BIO-1120 General Zoology (w/Lab)	4
HUM-1400 Introduction to Humanities	3
GSS-1100 Politics and American Culture	3

Option: Add the EMT course

**Junior – FALL (16 hrs)**

BIO-3450 Structure & Function I (w/Lab)	4
PHYS-1010 College Physics I (w/Lab)	5
BIO-3300 Genetics (w/Lab)	4
BEGE-2740 New Testament Literature	3

**Junior – SPRING (15 hrs)**

BIO-3460 Structure & Function II (w/Lab)	4
PHYS-1020 College Phys II (w/Lab)	5
BIO-3710 Biochemistry (w/Lab)	4
BIO-3800 Biological Research	2
BIO-XXXX Grad School Application Process	0

**Senior – FALL (17 hrs)**

BIO-4350 Immunology (w/Lab)	4
BIO-2210 Microbiology (w/Lab)	4
BIO-4800 Senior Seminar	1
BEGE-3750 Christian Worldview Development	2
LIT- ____ Literature Elective	3
GEN Elective (EMT certification fulfills this)	3

**Senior – SPRING (16 hrs)**

BIO-4300 Molecular Biology of the Cell (w/Lab)	4
HIST- ____ History Elective	3
HUM- ____ Humanities Elective ( <i>Psych of Person</i> )	3
BEGE-3760 Christian Worldview Integration	2
GEN Elective ( <i>only 1 hr needed if you took Precalc</i> )	1
SOC/HIST- ____ Social Science/Global Awareness	3

\* *Precalculus* is not required for the Molecular & Cellular Biology degree; however, if you do not have a strong math background or did not score well on the "Calculus Readiness Exam" (administered during freshmen orientation, "Getting Started Weekend"), you may want to take *Precalculus* before *Calculus I*. If you scored well on the "Calculus Readiness Exam," you may choose to forego this course, and proceed directly to *Calculus I*. However, two (2) semesters of math are often required for medical school, (and *some* med schools do require *Calc I*). Therefore, if you have a strong background in precalculus, you may want to consider taking the *Precalculus* CLEP TEST (to fulfill one (1) semester of math), and then taking *Calculus I* at Cedarville (to fulfill the 2<sup>nd</sup> semester of math required by many medical schools). Alternatively, you could take *Calc I & Calc II*, or *Calc I & Biostatistics* to satisfy the two (2) semesters of math if you plan to apply to medical schools which requires this. Both *Calculus II* (5 hrs) and *Introduction to Biostatistics* (3 hrs) would be "General Electives" for the Molecular & Cellular Biology degree.

**Suggested BIO Electives options: Any of these can fulfill BIO or GEN Elective credits**

BIO-2210 Microbiology (w/Lab) (Fa/Sp)	4
BIO-4410 Developmental Biology (Fa)	4
BIO-4350 Immunology (w/Lab) (Fa)	4
BIO-4710 Principles of Bioethics (Fa)	3
BIO-4470 Pathophysiology (Sp)	3
BIO-4880 Topics in Bio (Dissection) (Fa/Sp)	1-2

NOTE: offered based on number of students enrolled  
NOTE: permission from professor (limited space)

**Suggested HUM Elective:**

PYCH-3720 Psychology of Personality (Fa/Sp)	3
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NOTE: recommended if considering PA option

**Suggested SOC/HIST Elective: You MUST fulfill the Global Awareness Requirement before considering other electives.**

PYCH-1600 General Psychology (Sp/Fa/Su)	3
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**Suggested GEN Electives options:**

EMT-Basic Course (transfer credit) (Sp/Fa)	3
GBIO-2720 Bioethics & the Human Exp. (Sp)	3
GMTH-2110 Intro to Biostatistics (Sp)	3
GBIO-XXXX Immunology (Sp)	3
FIN-1710 Personal Finance (Fa/Sp)	3
BEPT-3510 Intro to Urban Ministries (Fa/Sp)	3
Any Bible Electives	

NOTE: must pass the national exam to earn this credit

NOTE: option for those unable to take BIO-4710 Principles of Bioethics

NOTE: option for those unable to take BIO-4350 Immunology

**Additional thoughts to consider:****1) MEDICAL SCHOOL COURSE REQUIREMENTS:**

- a. You will need to consider the requirements of the school to which you plan to apply, however most medical schools require two (2) semesters of each of the following: *Biology, General Chemistry, Organic Chemistry, Physics*, and (sometimes) *Math*. Any combination of *Precalculus, Biostatistics, Calc I*, and *Calc II* fulfills this requirement for most medical schools; however, calculus is sometimes preferred, but not required by most schools.
- b. The MCAT specifically targets the biological sciences (*Biology, Organic Chemistry*), and physical sciences (*Organic Chemistry, Physics*), along with reading comprehension and essay writing. In light of this, CU's *Pre-Medical Emphasis* includes these courses early in the curriculum.
- c. NOTE: A science degree is NOT required for admission to medical school.

**2) PHYSICIAN ASSISTANT SCHOOL COURSE REQUIREMENTS:**

- a. The following courses are suggested in the 4-year pre-med plan; however, they are REQUIRED by most PA schools. Because requirements vary by school, you will need to research the specific PA schools to which you will be applying to be sure you meet their unique requirements:
 

1) Medical Terminologies	0
2) BIO-2210 Microbiology	4
3) GMTH-2110 Intro to Biostatistics	3
or PSYCH-2610 Statistics	3
4) PSYCH-1600 General Psychology	3
- b. Also, be advised that several PA schools require more than 1 semester of Psychology.
- c. Although there are some exceptions, most PA schools do not require Physics, nor an entire year of Organic Chemistry. However, both are required for CU's *Premedical Emphasis*.

**3) CU GRADUATION COURSE REQUIREMENTS:**

- a. The requirements for graduation are outlined in the "Graduation Requirements" section of CU's *Undergraduate Academic Catalog*. (The "Global Awareness" instructions can also be found in this section.) Descriptions and requirements for all of Majors and Minors, along with a Course Description for every course offered at Cedarville are also found in this resource. You are encouraged to use the *Undergraduate Academic Catalog*, along with the *Course Schedule* webpage as you create your 4-yr plan.
- b. You will also want to keep in mind the following:
  - 1) Some courses are only offered in the fall or spring semester.
  - 2) Most BIO/CHEM courses are offered only during specific times of the day.
  - 3) Many courses have prerequisite courses.

All of this information can be found in the online *Undergraduate Academic Catalog* or *Course Schedule*.

**4) TRANSFER CREDITS:**

- a. We suggest NOT TRANSFERRING courses that are a part of the *Pre-Medical Emphasis* curriculum. Most of these courses are necessary for the MCATs and/or for Medical School. It is therefore wise to have a very strong foundation in these courses. Additionally, because the rigor of transferred courses vary, it is difficult to know how your transferred course compares to CU's course. Lastly, if you already know the information well, an "A" in that course should help your GPA. (Transfer credits don't contribute to your CU GPA, though they do contribute to your "college GPA" used during the Med School Application.)
- b. If you do plan to transfer credits into CU, we strongly recommend to have the Office of the Registrar approve (in writing) any transfer credits before you take the course. Although many credits do transfer, not every course from every institution can be accepted.

**5) CLEP TESTS:**

- a. We suggest NOT taking the CLEP TEST for courses in your MAJOR. Most of the courses in this major are necessary for MCATs or Medical School. It is therefore wise to have a very strong foundation in these courses.
- b. NOTE: Some Medical Schools do not recognize CLEP credit.
- c. CLEP tests for general education requirements must be taken PRIOR to your academic status of a "junior."
- d. Refer to the CU website for more information, including CLEP tests offered, etc.

**6) SUMMER COURSES (including May Term):**

- a. Some students prefer to off-load their semesters by taking summer courses.
- b. Students who have done this often suggest taking one or more of the following courses during the summer:
  - 1) Calculus (CU does not currently offer calculus in the summer, so this would need to be taken elsewhere and the credits transferred in)
  - 2) Politics and American Culture (May)
  - 3) Gen Psych (May)
  - 4) One of the Bible courses required to satisfy the Bible Minor (May)